

Public Page

The project, focusing on the design of a robotic platform for the inspection of unpiggable transmission pipelines and integration of an inspection sensor on it, was kicked off in a series of multiple meetings with sponsors and teaming contractors. All reporting and interaction modes were spelled out and POC-interaction defined. NGA is primarily leading the team interactions, with both Automatika and the Sensor-Provider carrying out parallel discussions to continue pushing the project forward. A concept-design review is being planned for next quarter for both the sensor-module and the preliminary robot-train.

Automatika is continuing to evaluate and refine the prime locomotor architecture at the mechanical, electrical and software levels. Once the sensor-module concept-design has been finalized and accepted by the development team, a final set of specifications for the locomotor can be drafted and provided for review and agreement. Critical subsystems (drive, centration and steering) were evaluated in pre-prototype form and design has begun for key critical elements (steering-module at this point only).

A multi-processor distributed electronics architecture has been defined for the entire system, and hardware components acquired and under current evaluation – this applies to all processors, imagers and compression-hardware, as well as wired and wireless communications media. The imaging system was specified and selected and is undergoing evaluation on a multitude of levels: image-quality, throughput, etc. Testing will conclude in the next quarter and validate key performance parameters of importance for the operator in real-time control scenarios.

Automatika will continue to interact with the Sensor Provider to finalize the sensor-module design to allow completion of design-related robot-base activities. Launching/Retrieval related design issues will also be considered during the early design through review of existing apparatuses and meetings with relevant vendors (if applicable).